

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau(43) International Publication Date
8 July 2004 (08.07.2004)

PCT

(10) International Publication Number
WO 2004/057583 A2(51) International Patent Classification⁷: **G11B 7/00**(21) International Application Number:
PCT/IB2003/006022(22) International Filing Date:
16 December 2003 (16.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
PCT/SG02/00304
19 December 2002 (19.12.2002) SG(71) Applicant (for all designated States except US): **KONIN-
KLJKE PHILIPS ELECTRONICS N.V.** [NL/NL];
Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventor; and

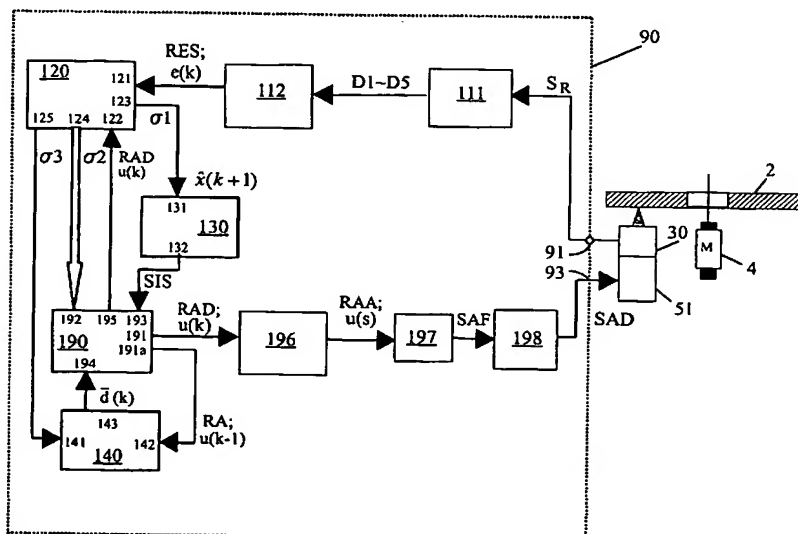
(75) Inventor/Applicant (for US only): **ZHOU, Yu** [CN/SG];
c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).(74) Agent: **DEGUELLE, Wilhelmus, H., G.**; Philips Intel-
lectual Property & Standards, Prof. Holstlaan 6, NL-5656
AA Eindhoven (NL).(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR,
CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,
MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU,
SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.(84) Designated States (*regional*): ARIPO patent (BW, GH,
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— as to applicant's entitlement to apply for and be granted
a patent (Rule 4.17(ii)) for the following designations AE,
AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE,
EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN,
IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,

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(54) Title: DISC DRIVE WITH IMPROVED RESISTANCE AGAINST MECHANICAL SHOCKS



(57) Abstract: A disc drive apparatus (1) comprises; a) actuator means (50) for controlling the positioning of an element (34) of a scanning means; b) error signal calculating means (111, 112) for receiving a read signal (S_R) and generating at least one error ($RES; e(k)$); c) a state estimator (120) for receiving said error and for outputting derived signals (s_1, s_2, s_3); d) shock detector means (130) for generating a shock indication signal (SIS); e) actuator control signal generator means (190) designed to perform sliding mode control (SMC), having at least one variable control parameter, for generating an actuator control signal ($RAD; u(k)$) on the basis of a second one (s_2) of said derived signals; f) the actuator control signal generator means setting a first value for said variable control parameter during normal operation, and setting a second value for said variable control parameter when said shock indication signal indicates the occurrence of a shock.



MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM,
ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD,
SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG,
CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT,
LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ,
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
TG)

Published:

— without international search report and to be republished
upon receipt of that report

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